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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/887,778	06/22/2001	Carl M. Panasik	TI-32891	8711
23494	7590	09/27/2005	EXAMINER	
TEXAS INSTRUMENTS INCORPORATED P O BOX 655474, M/S 3999 DALLAS, TX 75265			PEREZ, ANGELICA	
			ART UNIT	PAPER NUMBER
			2684	

DATE MAILED: 09/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/887,778	PANASIK ET AL.	
	Examiner	Art Unit	
	Angelica M. Perez	2684	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>9/26/2002</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed Applicant's arguments, see amendment, pages 10-14 pages, filed 3/29/2005, with respect to the rejection(s) of claim(s) 16 and 22 under 103 (a) rejection have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Rainish et al. and Eklund et al. See rejection under 103 (a) presented below.

2. With respect to claims 1 and 10 filed 3/29/2005 have been fully considered but they are not persuasive.

3. In the remarks, the applicant argued in substance:

(A) "...and **disabling transmission of the data signal by the mobile station when the mobile station is in a shadow of the base station**", (see page 10, paragraph 3).

In response to argument (A), the examiner cited "(figure 9; where the shadow is represented by the blocks obstructing the signal)". In addition, Rainish teaches where the disabling is performed by the mobile station; e.g., columns 1, 3 and 4, lines 24-28, 4-13 and 1-42, respectively. Thus, the specifications support shadowing caused by obstacles presented on the way between mobile station and base station; therefore, the prior art supports the rejection.

(B) **“monitoring the signal to noise ratio (SNR) of the data signal received by the mobile station from the base station to provide a determination whether the mobile station is in a shadow of the mobile station” and “disabling...”**.

In response to argument (B), the examiner pointed Rainish's teachings on column, 1, lines 24-28. Columns 3 and 4, lines 4-13 and 1-42, respectively further elaborate the teachings of monitoring SNR in order to determine shadowing.

(C) **“... ‘that indicated a loss of at least one primary base station rake finger to provide a determination whether the mobile station is in a shadow of the base station’ and ...”**.

In response to argument (C), the examiner would like to indicate that it is well known in the art that the loss of a at least one primary base station rake finger is an indication of loss of signal or shadowing.

(D) **“...’detecting an abrupt change in signal delay received by the mobile station from the base station to provide an indication of whether the mobile station is in a shadow of the base station’ and...”**.

In response to argument (D), the examiner would like to indicate that an abrupt change in signal delay is inherent indicator of shadowing.

(E) **“...’all words in the argument must be considered...In re Wilson...”, (page 12, , paragraph 2).**

In response to argument (E), the examiner agrees with applicant and has added the limitations to the corresponding rejected claims.

(F) "...misapplying the teachings of Eklund to the present invention...", (pages 12, and 13, paragraphs 3 and 1, respectively).

In response to argument (F), the examiner would like to point out that the preamble of the independent claims as broadly interpreted does not clearly identify the present invention of the application; therefore, the applicant has the right to broadly interpret and apply the art that reads on the claims.

(G) "...examiner bears the burden of establishing a prima facie case of obviousness...", (page 13, paragraphs 3-4).

In response to argument (G), the examiner would like to point that Rainish and Eklund deal with methods or systems that utilize receivers that deal with signal interference in one form or another. From the detection and analysis of such signals Rainish and Eklund take advantage of the data in order to either save power by reducing reception time or reject the interfering signals in order to attain better quality reception followed by power saving.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 1-8, 10-14, 16-20 and 22-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rainish (Rainish et al., US Patent No.: 6,606,490 B1) in view of Eklund (Eklund et al., US Patent No.: 6,181,924 B1).

Regarding claims 1 and 10, Rainish teaches of a method of data communication between a base station and a mobile station over a wireless communication network (column 1, lines 14-18), the method comprising the steps of: transmitting a data signal between a mobile station and a base station (column 1, lines 21-24); monitoring the data signal received by the mobile station from the base station (column 1, lines 24-28); and disabling transmission of the data signal by the mobile station (column 1, lines 24-28; where "disabling transmission" corresponds to going to a "sleep phase"); detecting an abrupt change in signal delay received by the mobile station from the base station to provide an indication of whether the mobile station is in a shadow of the base station. an abrupt change in signal delay is an inherent indicator of shadowing (columns 1 and 2, lines 28-35 and 21-29, 42-52, respectively; where the sudden prolong delay detection indicates a signal is corrupted by shadowing among other factors);transmitting a signal from the base station to the mobile station that indicates a loss of at least one primary base station rake finger to provide a determination whether the mobile station is in a shadow of the base station (column 1 and 2, lines 28-35 and 21-29, 42-52, respectively, lines 33-36; where it is well known in the art that the loss of a at least one primary base station rake finger is an indication of loss of signal or shadowing).

Rainish does not specifically teach that the mobile station is in a shadow of the base station.

In related art regarding the method of rejecting interfering signals, where the mobile station is in a shadow of the base station teaches where the mobile station is in a shadow of the base station (figure 9; where the shadow is represented by the blocks obstructing the signal).

It would have been obvious to a one of ordinary skill in the art at the time the invention was made to combine Rainish's disabling transmission applied to a mobile station in a shadow of the base station as taught by Eklund.

Regarding claim 2, Rainish in view of Eklund teaches all the limitations according to claim 1. In addition, Rainish teaches where the step of monitoring the data signal received by the mobile station from the base station comprises monitoring the signal to noise ratio (SNR) of the data signal received by the mobile station from the base station to provide a determination whether the mobile station is in a shadow of the base station (columns 6 and 7, lines 65-67 and 1-2, respectively).

Regarding claim 3. Rainish in view of Eklund teaches all the limitations according to claim 1. Rainish also teaches where the step of monitoring the data signal received by the mobile station from the base station comprises receiving a signal from the base station that indicates a loss of station rake fingers to provide a determination whether the mobile station is in a shadow of the base station (column 5, lines 23-25; where the rake receiver corresponds to the BS).

Regarding claim 4, Rainish in view of Eklund teaches all the limitations according to claim 1. Rainish further teaches the steps of monitoring the delay of the data signal received by the mobile station from the base station; and identifying an abrupt change in

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the delay received by the mobile station from the base station to provide an indication of whether the mobile station is in a shadow of the base station (column 1, lines 28-35; where the delay is one of the parameters considered as an indicator).

Regarding claims 16 and 22, Rainish in view of Eklund teaches all the limitations according to claim 1, 3 and 4.

Regarding claims 5, 11, 17 and 23, Rainish in view of Eklund teaches all the limitations according to claim 1. Rainish also teaches where the step of disabling transmission of the data signal by the mobile station when the mobile station is in a shadow of the base station comprises causing a transmitter associated with the mobile station to ramp down its power output until the mobile station transmitter enters an idle (off) state (column 4, lines 32-37 and 1-2; where a "sleep" mode corresponds to the "idle state").

Regarding claims 6, 12, 18 and 24, Rainish in view of Eklund teaches all the limitations according to claim 1. Rainish further teaches where the step of disabling transmission of the data signal by the mobile station when the mobile station is in a shadow of the base station comprises causing a transmitter associated with the mobile station to ramp down its power output to achieve a power condition associated with a previous period of time (column 4, lines 34-41; where the "waking up" corresponds to the previous power condition).

Regarding claims 7, 13, 19 and 25, Rainish in view of Eklund teaches all the limitations according to claim 1. Rainish further teaches the step of enabling

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transmission of the data signal by the mobile station when the mobile station is no longer in a shadow of the base station and subsequent to disabling transmission of the data signal at a previous power level by the mobile station (column 4, lines 32-41).

Regarding claims 8, 14, 20 and 26, Rainish in view of Eklund teaches all the limitations according to claim 1. Also, Rainish teaches where the step of enabling transmission of the data signal by the mobile station subsequent to disabling transmission of the data signal by the mobile station comprises causing a transmitter associated with the mobile station to ramp up its power output until the mobile station transmitter output power level

reaches a previous power level (column 4, lines 34-41; where the increase in power occurs during the "waking up" period).

6. Claims 9, 15, 21 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rainish in view of Eklund as applied to claims 7, 13, 19 and 25 above, and further in view of Bergins (Bergins et al., Patent No. 6,564,071 B1).

Regarding claim 9, 15, 21 and 27) Rainish in view of Eklund teaches all the limitations according to claim 1.

Rainish does not specifically teach where the step of enabling transmission of the data signal by the mobile station subsequent to disabling transmission of the data signal by the mobile station comprises causing a transmitter associated with the mobile station to ramp up its power output until the mobile station transmitter output power level reaches the maximum power level.

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In related art regarding transmission of data over a cellular telephone channel, Bergins teaches where the step of enabling transmission of the data signal by the mobile station subsequent to disabling transmission of the data signal by the mobile station comprises causing a transmitter associated with the mobile station to ramp up its power output until the mobile station transmitter output power level reaches the maximum power level (column 3, lines 13-21 and figure 2, items 203, 204 and 205; where the threshold determines a minimum and minimum level).

It would have been obvious to a one of ordinary skill in the art at the time the invention was made to combine Rainish's enabling transmission with Bergins' power level determinant in order to restart connection after a maximum power level is reached.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angelica Perez whose telephone number is 571-272-7885. The examiner can normally be reached on 7:00 a.m. - 3:30 p.m., Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on (571) 272-7882. The fax phone numbers for the organization where this application or proceeding is assigned are 571-273-8300 for regular communications and for After Final communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either the PAIR or Public PAIR. Status information for unpublished applications is available through the Private PAIR only. For more information about the pair system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). Information regarding Patent Application Information Retrieval (PAIR) system can be found at 866-217-9197 (toll-free).


Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the TC 2600's customer service number is 703-306-0377.

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8-20-05

Tilahun Geesse

**TILAHUN GESESSE
PRIMARY EXAMINER**


Angelica Perez
(Examiner)

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August 19, 2005